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# VLAN Configuration Commands-1

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# Chapter 1 VLAN Configuration Commands

## 1.1 creat vlan

**[Function]**

Create static VLAN.

**[Command Format]**

**creat VLAN** *[<3-4094>] {active|suspend}*

**[Parameter]**

*<3-4094>*: Range of VLAN.

**[Default]**

All ports belong to VLAN 1 by default.

**[Command Modes]**

Global configuration mode

**[Executing Command Instruction]**

Use this command to create static VLAN.

**[Explanation of command execution echo]**

*Create successfully.*

*Create unsuccessfully.*

**[Example]**

Create VLAN 4:

Raisecom(config)#**create vlan** *4 active*

**[Related commands]**

| Commands | Description |
|---|---|
| **show vlan** *[<3-4094>]* | Show VLAN configuration information. |

## 1.2 name (VLAN)

**[Function]**

Configure the name of static VLAN.

**[Command Format]**

**name** *WORD*

**[Parameter]**

*WORD*: The name shall be less than 15 characters

**[Default]**

By default, the name of system default VLAN (VLAN1) is “Default” and cluster VLAN name is “Cluster-Vlan”, other name of static VLAN is string “VLAN” plus four bits VLAN ID, Example, the default name of VLAN1 is “VLAN0001”, VLAN 4094 default name is “VLAN4094”.

**[Command Modes]**

Static VLAN configuration mode; privileged user

**[Explanation of command execution echo]**

*Set successfully*

*Set unsuccessfully*

**[Example]**

Set the name of VLAN 3 to “HR”:

Raisecom(config-vlan)# **name** *HR*

**[Related commands]**

| Commands | Description |
|---|---|
| **name** | Name static VLAN. |
| **state** | Set active status of static VLAN. |
| **show vlan** | Show VLAN configuration information. |

## 1.3 state

**[Function]**

Set the active state of static VLAN.

**[Command Format]**

**state** *{active | suspend}*

**[Parameter]**

*active*: Set static VLAN active;

*suspend*: Set static VLAN suspend.

**[Default]**

Suspended by default.

**[Command Modes]**

The configuration exec of static VLAN; privileged user

**[Executing Command Instruction]**

All the configuration of static VLAN is enabled when VLAN is active. When static VLAN is suspend, users can configure it, such as delete/add port, set the VLAN name, system will remain the configuration. Once the VLAN is active, the configuration will work in system.

**[Explanation of command execution echo]**

*Set successfully.*

*Set unsuccessfully.*

*Default vlan is always active.*

**[Example]**

Set VLAN 2 active,exit VLAN configuration mode:

Raisecom(config-vlan)# **state** *active*

Raisecom(config-vlan)# **exit**

Raisecom(config)#

**[Related commands]**

| Commands | Description |
|---|---|
| **name** | Name static VLAN. |
| **state** | Set active status of static VLAN. |
| **show vlan** | Show VLAN configuration information. |

## 1.4 switchport access vlan

**[Function]**

Set the ACCESS VLAN ID for the port.

**[Command Format]**

**switchport access vlan** *<1-4094>*

**no switchport access vlan**

**[Parameter]**

*<1-4094>*: Specify the ACCESS VLAN ID when port is set to ACCESS, EXTEND-ACCESS、DOT1Q-TUNNELmode.

**[Default]**

Default value is 1.

**[Command Modes]**

Ethernet physical port interface/ port range configuration mode; privileged user.

**[Executing Command Instruction]**

Specify the ACCESS VLAN ID when port is set to ACCESS, EXTEND-ACCESS, DOT1Q-TUNNEL mode. To UNTAG packet, use this value to mark TAG, port will give up TAG when transmit VLAN.

User can use **no switchport access vlan** command to recover default setting.

**[Explanation of command execution echo]**

*Set unsuccessfully on port PORTID!*

*Set successfully.*

**[Example]**

Set ACCESS VLAN ID of the port to 3:

Raisecom(config-port)# **switchport access vlan** *3*

Recover ACCESS VLAN:

Raisecom(config-port)#**no switchport access vlan**

**[Related commands]**

| Commands | Description |
|---|---|
| **switchport hybrid allowed vlan** | Set allowable VLAN when port is set to HYBRID mode. |
| **switchport hybrid untagged vlan** | Set allowable UNTAG VLAN when port is set to HYBRID mode. |
| **switchport mode** | Set the VLAN mode of the port. |
| **switchport native vlan** | Set the NATIVE VLAN when port is set to HYBRID or TRUNK mode. |
| **switchport trunk allowed vlan** | Set the allowable VLAN when port is set to TRUNK mode. |
| **show interface port** *portlist* **switchport** | Set port relevant VLAN setting. |

## 1.5 switchport hybrid allowed vlan

**[Function]**

set the allowed vlan when port is HYBRID mode.

**[Command Format]**

**switchport hybrid allowed vlan** {**all** | *vlan-list* | ***add*** *add-vlan-list* | **remove** *remove-vlan-list}*

**no switchport hybrid allowed vlan**

**[Parameter]**

*all*: all VLAN;

*{1-4094}*: VLAN list, overlay the former configuration directly;

*add*: add vlan base on the existent vlan;

*add-vlan-list*: add vlan list;

*remove*: remove vlan base on the existent vlan;

*remove-vlan-list*: remove vlan list.

**[Default]**

Only allow default VLAN 1 and cluster VLAN 2 pass.

**[Command Modes]**

Ethernet Physical port configuration mode; privileged user.

**[Explanation of command execution echo]**

*Set unsuccessfully on port PORTID!*

*Set successfully.*

**[Executing Command Instruction]**

Set the allowed VLAN when port is set to HYBRID mode.

User can use **no switchport hybrid allowed vlan** command to recover default setting.

**[Example]**

Set the allowed VLAN 2,3,100 when port is set to HYBRID mode:

Raisecom(config-port)# **switchport hybrid allowed vlan** *2-3,100*

Recover default setting:

Raisecom(config-port)#**no switchport hybrid allowed vlan**

**[Related commands]**

| Commands | Description |
|---|---|
| **switchport access vlan** | Set the ACCESS VLAN ID of the port |
| **switchport hybrid untagged vlan** | Set the UNTAG VLAN when port is set to HYBRID mode. |
| **switchport mode** | Set port VLAN mode. |
| **switchport native vlan** | Set the NATIVE VLAN when port is set to HYBRID or TRUNK mode. |
| **switchport trunk allowed vlan** | Set the allowed VLAN when port is set to TRUNK mode. |
| **show interface port** *portlist* **switchport** | Set port relevant VLAN configuration. |

## 1.6 switchport hybrid untagged vlan

**[Function]**

Set the allowed vlan when port is HYBRID mode.

**[Command Format]**

**switchport hybrid untagged vlan** {**all** | *vlan-list* | **add** *add-vlan-list* | **remove** *remove-vlan-list*}

**no switchport hybrid untagged vlan**

**[Parameter]**

*all*: all VLAN;

*{1-4094}*: VLAN list;

*add*: add vlan base on the existent vlan;

*add-vlan-list*: add vlan list;

*remove*: remove vlan base on the existent vlan;

*remove-vlan-list*: remove vlan list..

**[Command Modes]**

Ethernet physical port / port range configuration mode; privileged user.

**[Explanation of command execution echo]**

*Set unsuccessfully on port PORTID!*

*Set successfully*.

**[Executing Command Instruction]**

Set the allowed UNTAGGED VLAN when port at HYBRID mode.

User can use **no switchport hybrid untagged vlan** command to recover default setting.

**[Example]**

Set the allowed UNTAG VLAN 2,3,100 when port is HYBRID mode:

Raisecom(config-port)# **switchport hybrid untagged vlan** *2-3,100*

Recover to default setting:

Raisecom(config-port)#**no switchport hybrid untagged vlan**

**[Related commands]**

| Commands | Description |
|---|---|
| **switchport access vlan** | Set the ACCESS VLAN ID of the port |
| **switchport hybrid allowed vlan** | Set the allowed VLAN when port is HYBRID mode. |
| **switchport mode** | Set port VLAN mode. |
| **switchport native vlan** | Set the NATIVE VLAN when port is set to HYBRID or TRUNK mode. |
| **switchport trunk allowed vlan** | Set the allowed VLAN when port is set to TRUNK mode. |
| **show interface port** *portlist* **switchport** | Set port relevant VLAN configuration. |

## 1.7 switchport mode

**[Function]**

Set the VLAN mode for the port.

**[Command Format]**

**switchport mode** *{ access | hybrid [ double-tagging | dot1q-tunnel ] | trunk [ double-tagging ] | dot1q-tunnel }*

**no switchport mode**

**[Parameter]**

*access*: ACCESS mode, set port as UNTAG mode to sole VLAN;

*hybrid*: HYBRID mode, set the port as UNTAG or TAG mode to several VLAN;

*hybrid dot1q-tunnel*: set the port as HYBRID mode and enable the port add external Tag (SP Vlan Tag) for the packet entering the port by force (ignore the possibility that external or internal TAG may exist in packet);

*trunk*: TRUNK mode, set the port as TAG mode to several VLAN, as UNTAG mode in several Native vlan;

*trunk double-tagging*: set port as TRUNK mode and enable the port ability of recognizing and dealing with external Tag (SP Vlan Tag);

*dotlq-tunnel*: TUNNEL mode, the packets enter from this port can be marked double Tag.

Thereinto, all ISCOM series switches are in support of **access|hybrid|trunk** mode.

dot1q-tunnel,hybrid tunnel and double tag modes are supported by switches in type of ISCOM2826E/2828F/2852/2812GF/2924GF/2926/3026E/3028F/3052/3012GF/2109/2009 /2126S/2009A/2109A/2118.

**[Default]**

All the port default as EXTEND-ACCESS mode in VLAN 1.

**[Command Modes]**

Ethernet Physical port configuration mode; privileged user.

**[Explanation of command execution echo]**

*Set unsuccessfully on port PORTID!*

*Set successfully.*

**[Executing Command Instruction]**

When the port of the switch is connected to the terminal users, port can be set to ACCESS mode; port can be set to EXTEND-ACCESS mode when port is cascade mode but it isolated from other VLAN, and it can transmit default vlan and cluster vlan packet, port can be set to DOT1Q-TUNNELmode when switch port is the ingress port of Q-in-Q network; port can be set to HYBRID mode when user want to set the VLAN hybrid mode of the port; when the port of switch is set to uplink TAG port, set it to TRUNK mode.

User can use **no switchport mode** to recover default setting.

**[Example]**

Set the port VLAN mode to be ACCESS mode:

Raisecom(config-port)# **switchport mode access**

Recover port VLAN mode:

Raisecom(config-port)#**no switchport mode**

**[Related commands]**

| Commands | Description |
|---|---|
| **switchport access vlan** | Set the ACCESS VLAN ID of the port |
| **switchport hybrid untagged vlan** | Set the UNTAG VLAN when port is set to HYBRID mode. |
| **switchport hybrid allowed valn** | Set the allowed vlan when port is HYBRID mode. |
| **switchport native vlan** | Set the NATIVE VLAN when port is set to HYBRID or TRUNK mode. |
| **switchport trunk allowed vlan** | Set the allowed VLAN when port is set to TRUNK mode. |

| | |
|---|---|
| **show interface port** *portlist* **switchport** | Set port relevant VLAN configuration. |

## 1.8 switchport native vlan

**[Function]**

Set allowed VLAN when port is HYBRID mode.

**[Command Format]**

**switchport native vlan** *<1-4094>*

**no switchport native vlan**

**[Parameter]**

*<1-4094>*: local VLAN;

**[Default]**

Default situation.

**[Command Modes]**

Ethernet Physical port configuration mode; privileged user.

**[Explanation of command execution echo]**

*Set unsuccessfully on port PORTID!*

*Set successfully.*

**[Executing Command Instruction]**

Set the NATIVE VLAN when port is set to HYBRID or TRUNK mode, use NATIVE VLAN mark to enter port UNTAG packet, delete the mark for the packet for port egress NATIVE VLAN.

Use **no switchport native vlan** command to recover default setting.

**[Example]**

Set the NATIVE VLAN to 3 when port is set to HYBRID or TRUNK mode:

Raisecom(config-port)# **switchport native vlan** *3*

Recover default setting:

Raisecom(config-port)#**no switchport native vlan**

**[Related commands]**

| Commands | Description |
|---|---|
| **switchport access vlan** | Set the ACCESS VLAN ID of the port |
| **switchport hybrid untagged vlan** | Set the UNTAG VLAN when port is set to HYBRID mode. |
| **switchport hybrid allowed valn** | Set the allowed vlan when port is HYBRID mode. |
| **switchport mode** | Set VLAN mode for the port. |
| **switchport trunk** | Set the allowed VLAN when port is set to TRUNK mode. |

| allowed vlan | |
|---|---|
| **show interface port** *portlist* **switchport** | Set port relevant VLAN configuration. |

## 1.9 switchport trunk allowed vlan

**[Function]**

Set allowed VLAN when port is TRUNK mode.

**[Command Format]**

**switchport trunk allowed vlan** {**all** | *vlan-list* | **add** *add-vlan-list* | **remove** *remove-vlan-list*}

**no switchport trunk allowed vlan**

**[Parameter]**

*all*: all VLAN;

*{1-4094}*: VLAN list, overlay the former configuration directly;

*add*: add vlan base on the existent vlan;

*add-vlan-list*: add vlan list;

*remove*: remove vlan base on the existent vlan;

*remove-vlan-list*: remove vlan list.

**[Default]**

Default to be all.

**[Command Modes]**

Ethernet Physical port configuration mode; privileged user.

**[Explanation of command execution echo]**

*Set unsuccessfully on port PORTID!*

*Set successfully.*

**[Executing Command Instruction]**

Set allowed VLAN when port is TRUNK mode.

Use **no switchport trunk allowed vlan** command to recover default setting.

**[Example]**

Set the allowed VLAN 2,3,100 when port is set to TRUNK mode:

Raisecom(config-port)# **switchport trunk allowed vlan** *2-3,100*

Recover default setting:

Raisecom(config-port)#**no switchport trunk allowed vlan**

**[Related commands]**

| Commands | Description |
|---|---|
| **switchport access vlan** | Set the ACCESS VLAN ID of the port |

| | |
|---|---|
| **switchport hybrid untagged vlan** | Set the UNTAG VLAN when port is set to HYBRID mode. |
| **switchport hybrid allowed valn** | Set the allowed vlan when port is HYBRID mode. |
| **switchport mode** | Set VLAN mode for the port. |
| **switchport native vlan** | Set the NATIVE VLAN when port is set to HYBRID or TRUNK mode. |
| **show interface port** *portlist* **switchport** | Set port relevant VLAN configuration. |

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